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THEATRES, HALLS, AND AUDIENCES.

BY DION BOUCICAULT.

In 1854 Tripler Hall, on Broadway, New York, was burned. It stood on the site now occupied by the Grand Central Hotel. In the same year were built the Metropolitan Theatre and the Lafarge Hotel, covering the same ground. This theatre measured one hundred feet in width by one hundred and fifty in depth. The curtain opening was sixty feet in width—by far the largest in the world. After struggling vainly for five years, the elephantine theatre came to grief. I pointed out to Mr. Lafarge its unwieldy size as the cause of its failure;—no management could successfully deal with such a leviathan. He confided the building to me, and I scooped out the interior down to the foundation, leaving only the walls and roof standing, and within this space a theatre was erected about the size of the Star. We called it the Winter Garden; it was successfully managed until its destruction by fire in (I think) 1866 or thereabouts.

In 1857 the Academy of Music in Philadelphia was built. The object which inspired its proprietors was to have a theatre which should surpass in size any theatrical building in the world. So, on the plans of this monument were traced the outlines of the Scala, the San Carlo, the Covent-Garden Opera-House in London, the Boston Theatre, to show how very much larger was the Philadelphia monster. Amongst the eminent stars that made their appearance there during its opening season came Charles Mathews, the English comedian. He pronounced the Academy a magnificent affair as a theatrical monument, but suggested that every spectator be provided with a telescope and each actor with a speaking-trumpet.

In 1864 the Albert Hall in London was projected, dedicated to the Prince Consort, then recently dead; this hall was to be devoted to concerts, to fine-art meetings, and exhibitions. The ground was given by the government conditionally on the subscription of a certain amount by shareholders in the building. The payment of $5,000 entitled the subscriber to a private box. I was one of the box-holders that hastened to support the scheme. When the plans were set forth, it was found that the auditorium was to be of proportions so enormous that Langham Church steeple and spire, if set in the midst of the pit, would not reach the proposed ceiling. I ventured to point out that such an auditorium would be found unfit for speech; and even for music it would present all the objections that singers and instrumental performers find in open-air concerts, including, possibly, sundry echoes to distract and confuse the sound. These objections were set at nought; and the Albert Hall was opened by the Prince of Wales in the presence of ten thousand spectators. We cannot call them an audience, as not a word His Royal Highness uttered on this occasion could be heard. The result verified all the objections raised. Then came the remedies. Amongst others, a huge *velarium*, or swinging canvas ceiling, was suspended with lines over the orchestra; but these contrivances failed to mitigate the trouble, for the trouble was and is, simply, that the human voice can fill an area containing only a certain number of cubic feet, and the eye of the spectator can see only within the scope of human vision. These limitations seem to be self-evident, but our ambition and pride continue to ignore, or, at least, to disregard, them.

The most powerful and articulate voice, when used in speech, can fill an enclosed area of 320,000 cubic feet—that is, a room eighty feet in breadth, eighty feet in length, and fifty feet in height; and to fill even this space perfectly the speaker should be aided by certain conditions, which are to be found in the peculiar arrangement of a theatre. Let us assume that the stage and auditorium, taken together, represent an enclosure one hundred and twenty feet in length, eighty feet in breadth, and fifty feet in height. The speaker would stand at a point with eighty feet in front of him and forty feet behind him, this forty feet representing the stage. But this forty feet is contracted, practically, by the hanging scenery above his head, which packs that space closely, excepting twenty-five feet, which is the height left clear on the stage. At the sides scenery on frames stands in the entrances, packed so closely as to leave about thirty-six feet clear. Thus the speaker finds himself boxed in an area thirty-six feet in width, twenty-five feet in height, and forty feet deep. From this chamber he directs his voice into the auditorium eighty feet in depth, eighty feet in width, and fifty feet in height. The auditorium, packed with an audience and brilliantly lighted, generates considerable heat, while the stage remains at a much lower temperature ; this state of affairs causes a current of air to flow continuously from the stage to the auditorium. It carries the voice of the speaker with it. The draught is very sensibly felt by the spectators at the moment when the curtain is raised, and its presence may be detected by the movement of the curtain, which tends invariably to distend, or "bag," towards the audience, under the pressure of the colder air on the stage, so that in some cases the curtain must be anchored down or held on sliding rings at the sides, that run down on fixed wires or rods; without which tension the curtain would be blown out over the orchestra.

Here let us pause to agree on some convenient and proper nomenclature to designate the several parts of a theatre. Some years ago I ventured to invent the word *auditorium* to express that portion of a theatre occupied by the audience, and being in front of the foot-lights. I was subjected to some ridicule for this piece of pedantic presumption ; but the word was really wanted, and it stuck. I now propose to call that portion of a theatre occupied by the stage from the curtain backward the *scenarium*. The portion in front of the curtain and between it and the foot-lights is called the *proscenium*. This small space belongs to the scenarium when the curtain is up and to the auditorium when the curtain is down.

With all the advantages enumerated for the conveyance of the voice in theatres, which no other form of auditorium affords, still we have never discovered the principles applicable to the proportions of a great hall by which the voice is spread and conveyed evenly and in the most perfect manner to all parts. After the building is completed, it is, confessedly and notoriously, a matter of accident, and a question to be solved by experiment, whether it is "good for sound." When it proves to be defective, no one can explain why it is so, or where the defect lies, or prescribe a remedy. Echoes will be discovered nestling in one spot;

reverberations confusing the voices will be found in another; a person seated thirty feet from the speaker will hear with difficulty, while his voice reaches one seated seventy feet away distinctly. This hall, containing 300,000 cubic feet, is easily filled by the voice, while in this smaller one, not containing 200,000 feet, the speaker is at great trouble to make himself heard. If acoustics were an exact science, would there be, could there be, any doubt or error in these matters? By experiment we are led to believe that the domed, the arched, the groined roof is bad for sound; and, therefore, in cathedral churches, where it has been found, chanting was used and a musical service became essential: the long, open, sonorous notes which characterize sacred music were, I suspect, an architectural consequence. Those who have listened to a preacher holding forth in a sermon after the anthem may have noticed how unfit such an auditorium is for speech.

Some sixteen or eighteen years ago I visited the great Mormon Temple in Salt Lake City. I have not the precise dimensions of the building, but it certainly contained considerably more than 320,000 cubic feet. Mr. Brigham Young assured me that the voice of a speaker was audible in all parts of this vast area. There is no reason to doubt this statement, and it is mentioned here as a remarkable exception to the general rule. The temple, as well as I can remember, was oval in shape, covered with a flat ceiling coved to meet the walls. From this form I should have expected echoes and over-resonance; but I was informed that there were no such results. The single instance of the Mormon Temple should be received with this reserve: admitting that the voice was audible, what voice was used? The only fair test is by the use of a clear articulate organ, full and resonant, but not forced so as to lose variety of inflection; for we speak on many notes, but in shouting we use only one. So public speakers accustomed to open-air eloquence adopt a monotonous and artificial rant. It is not by such shouting that an auditorium should be tested. In shouting the vowels are excessively used, for we cannot shout a consonant. The consonants give clearness of articulation: earnestness of expression depends on their use. The vowels give sweetness of speech and volume of tone: they are the powder which drive the shot. The secret of being distinctly heard is not loudness of voice, but clearness and crispness of articulation, and that natural, familiar inflection which helps to convey the meaning of your phrase by its intonation. It is important that the first few words of a speaker be distinctly heard: if they be so, the audience at once lend silence—in itself a potent assistance; whereas if they fail to hear, they will turn aside, and inattention takes many forms of disturbance. The monotone of a Mormon preacher, accustomed to open-air elocution, might with his semi-chant have filled the temple, when a voice limited within its natural compass, and reserving all its uses of inflection, might not be heard.

And here it may be proper to offer the statement that, amongst all the musical instruments, a perfect human voice is the most powerful, surpassing the ear-piercing fife or the brazen trumpet, surpassing in power an orchestra of one hundred and fifty instruments or a chorus of four hundred ordinary voices. Many years ago I attended a monster concert given at the Crystal Palace, London, where the executants numbered, I believe, these figures. Our party, arriving late, were hurrying up the long ascending glass-enclosed corridor that flanks the gardens and conducts to the concert-hall. As we approached, we heard one full and rich note; we stood a moment; it came from the throat of Sophie Cruvelli. As we hurried on, we began to hear faintly some of the brass instruments in the orchestra; nearer still, we began to hear the chorus and the orchestral accompaniment; but soaring out and above all came the clear soprano notes of the singer, easily leading four hundred and fifty contending sounds. The body of sound made by the combination of five hundred sounds does not extend further or fill a greater area than each single sound in the combination. It is like five hundred people throwing stones; the air within a certain region will be full of stones, but not one stone will reach further than its fellows.

When monster concerts were beginning to become popular, Balfe, the composer, and I visited one of them, given I forget where. In the orchestra were upwards of one hundred and fifty executants; of these, of course, two-thirds were strings. Mario came forward and sang. After his pure rich tenor voice rose like a lark in the first bars of the recitative, down came a hundred strings in a thumping chord. It was out of all proportion with the voice. It was an outrage on the ear.

"Balfe," I said, "what do you call that? To me it sounds awful."

"'*C'est magnifique,*'" he replied, "'*mais ce n'est pas la guerre!*' But we are monstrefying everything, as if size and extremity were elements of art. We are tearing the throats of our singers to get one note higher in the compass, to arrive at which we spoil all the rest of his voice. If a fellow can scream a C sharp, he has a fortune, but a D makes a millionaire. Listen to that!"

Mario was singing the tenor solo, from the "Borgia."

"In twenty years hence," continued Balfe, "there will be no such voices heard. Quality will yield to quantity. They will cease to make a Stradivarius. It will all be yell and row-de-dow."

"In an orchestra of those gigantic dimensions, is it easy to hold it all together in perfect unison?"

"You may say, 'Is it possible?'" remarked the musician. "Precision in time and of tune suffers when the orchestra and chorus are too wide for the scope of the conductor. I doubt if perfect execution can be obtained by an orchestra of more than eighty pieces—that is, eighteen on the brass, twelve on the wood, and fifty on the strings, excluding the *batterie de cuisine.* The best execution I ever heard was from an orchestra of these dimensions. But you will see that monstrosity in art will characterize the coming age."

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The exorbitant buildings to be devoted to music and the drama, now either in process of erection or under advisement, in Chicago and in Madison Square and Seventh Avenue, New York, are, by the description we hear of their proposed large capacities, liable to disappoint the hopes of their projectors. Let us parade a few poor and perhaps sordid facts concerning buildings for this purpose, which, after all, must eventually arrive at the fundamental question—will they be self-supporting? will they pay?

I have frequently heard the management of a theatre complain that it was too large. I have never heard a manager complain that his house was too small.

A large theatre requires for the production of the same work a greater number of musicians in the orchestra; a greater consumption of gas; a greater number of attendants; a larger number of supernumeraries and ballet; a larger staff of carpenters, property-men, and gas-men; a larger amount of canvas and wood for the larger scenery; a larger quantity of furniture on the stage.

There is an increment in every department. It is, therefore, much more costly to carry on than a smaller theatre. The same entertainment does not look so well on the large stage, unless it be a spectacular play, and the public do not patronize a performancein proportion to the size of the theatre in which it is given.

The popular places of public entertainment have always been medium-sized or small.

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The stature of the actor should determine the size of the stage on which he appears, and the distance at which his features can be perfectly seen may determine the proportions of the auditorium. The measure of the spectator's eye may be taken as a standard for his ear, for within that scope the actor will be heard: the two senses are, so far as a theatre is concerned, of equal capacity.

I now approach another matter, which many may say is not a matter of fact; and I am diffident in making the statement because it seems to conflict with a principle laid down by Huxley, who says : " It is wrong for a man to say he is certain of the truth of any proposition unless he can produce evidence which logically justifies that certainty." Yet I am certain that some artists possess a power over a multitude which cannot be logically accounted for ; that I have again and again witnessed a phenomenon, and have myself exercised a power, of which I am sensible, but of which I can render no explanation. When a public speaker or an actor approaches his public, his mind reaches forth to collect them; his art is to deprive them of their separate individualities, and fuse all listening minds into one—to make all hearts beat as one; and, as he leads them to beat, to bring them irresistibly into one current of sympathy. Those who have dealt with masses of minds under such conditions will remember the indecision and fluctuation that precede the moment when, not gradually, but suddenly, the crowd becomes unified by a kind of electric shock. The actor, feeling the effect, murmurs to himself the old stage expression, " I have got them !" He feels the instant, not by any sound emitted or any indication audible or visible; but by some sympathetic chord, which becomes taut and vibrates. I, sitting as a spectator, perhaps as author of the play, and watching for this well-known and expected phenomenon, feel the shock and know its meaning. Passing, as my vagabond life has led me, from

London to New York, over the United States, to Australia, visiting a hundred different cities and practising on many different audiences, I have been able to compare results, and find that, when an audience exceeds a certain size, it is very difficult to establish in it perfectly this fusion of minds. I may succeed with the lower regions and fail to bring the upper into the swim. I feel there is a limit where my efforts prove unable to keep the whole a unit. I might ascribe this failure to my own deficiency of power, but I have remarked the same failure under similar circumstances, when great artists were using their grandest efforts.

Wherefore I am led to believe that a gronp of more than two thousand persons is not so susceptible to the psychic influences exerted by artists as a group of less than that number. There is a limit to the genius of the actor as regards its reach over his audience; and no auditorium should exceed in size that limit.

If one were not afraid of overloading your readers with theatrical phenomena for which we fail to account, I would ask how, in a city of over two millions of inhabitants like New York, or of five millions like London, when a popular play is running, does the public so measure the capacity of a theatre that, if it holds fifteen hundred people, that number exactly, or within a hundred or so, present themselves nightly for admission; but if it be the Madison-Square Garden, with Barnum's exhibition, holding ten thousand, that number will present themselves? The same holds good in London and in Paris.

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